

July 1, 1948.

Dear Jacques,

Reading your paper in Growth, I was reminded that I had not answered your last letter, and especially that I had not sent you the cultures that were promised. I had hoped to meet Lwoff in New York or New Haven, but unfortunately failed to catch up with him in May. Assuming that you have never received them, I shall make up a package today containing:

- W-1 (T-L-B₁-Lac₁-Mal₁-). Lac₁- is revertible.
- W-20 (B-M-Mal₂-) This strain does ferment maltose very slowly.
- W-60 (B-M-V₁^r Mal₃-)
- W-102 (T-L-B₁-Mal₄- ? may be Mal₂).
- W-108 T-L-B₁-Lac₃-. Apparently this strain does not ferment glucose, nor split lactose or maltose. Suppressor mutations affecting each of these functions separately have been found.

I can't report very much more progress. My conclusions, or lack of them, are in about the same state. The procedure that you described is closely similar to my own for lactase extraction. Professor Link has prepared a small sample of o-nitrophenyl β -D-galactoside by the condensation of the phenol with Acetobromgalactose, and it looks like a good chromogenic substrate for lactase. Unfortunately, I don't have enough to send you some, but the preparation is quite straightforward.

With best regards from Esther,

Yours sincerely

Joshua Lederberg.

P.S. Can I take it for granted that you will send me a copy of your very excellent paper in Growth?